A FEW WORDS ON WATER,

AS A

REMEDY, A PREVENTIVE, AND A LUXURY,

IN CONNECTION WITH THE SYSTEM PRACTISED AT

THE ESTABLISHMENT OF

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A FEW WORDS ON WATER, &c.

In the present day it would be idle to enter into any lengthened disquisition to prove the value of water as a remedial agent. The fact is so firmly established as to be incontrovertible. The results of the application of water in removing even malignant and deep-rooted disease are as fully proved as the powers of steam or the triumphs of electricity. Almost every spot in England which is celebrated for the salubrity of its air and the beauty of its scenery possesses a mansion set apart by some physician for the cure of maladies by means of varied and intelligent applications of water. Some of the most able and experienced practitioners of the age preside in these establishments, and every year give ease and comfort to thousands.

The principle of hydropathy was enunciated by the great Dr. Sydenham in the seventeenth century; but the credit of reducing it to an actual system of medicine, and showing to the world the beneficial curative results of which it is capable, is due to Vincenz Priessnitz, a Silesian in an humble sphere of life, but of great powers of mind, who, little more than a quarter of a century ago, having accidentally discovered some of the remedial powers of cold water, pursued the clue which Providence had unfolded to

his eyes until he founded the basis of the system which is now being practised with increasing success throughout the civilized world. The practice of hydropathy has, however, become considerably modified and improved during later years, and while the simple truths enunciated by Priessnitz have been adhered to, new processes, which the necessarily limited experience of his life did not give him an opportunity of discovering, have been adopted, greatly to the comfort of the patient and the satisfaction of the practitioner whose heart is in his profession. Nor is the term "cold water cure," which is the popular, and was at one time the correct, designation of this method of medical treatment, any longer entirely applicable to it. It would be absurd for the practitioner to allow his predilection for any fancied uniformity of practice to stand in the way of a change or improvement which experience told him would be more effectual in curing disease or relieving pain. The original hypothesis on which hydropathy was founded no doubt was that *cold* water, in its various applications, was a sufficient remedial agent. Extended experience, however, has shown that, efficient as water may be as a remedial agent when cold, that efficiency is in certain cases greatly increased by the application of it in a *heated* state. This is undoubtedly the greatest and most important modification of hydropathy, and one to which the attention of the reader will be hereafter more especially invited.

A word or two as to the nature of disease, and the *rationale* of its cure by water treatment. In the human being, healthful life consists in the proper and vigorous discharge of the many functions of which the body and mind are capable. When any of these act irregularly, disease more or less active ensues. Bodily disease of the most severe kind may be caused, as we all know, by action of the mind, such as an excessive emotion of fear, anger, &c.; but most generally it arises from an improper working

of the functions of the body itself. These functions are manifold, and are in incessant operation. Many of them are necessarily of a very delicate and sensitive character, and liable to disarrangement from slight causes. Yet such is the beneficent arrangement of Providence that the tendency always is to get back to order and regularity, and frequently with but small manifestations of those symptoms which we call disease, but which are in reality the outward indications of the efforts which the vital principle is making to throw off something which encumbers the action of the system. This train of action we see clearly illustrated in a common cold. Owing to some indiscretion of which we have been guilty, the perspiration which is always oozing from the body has become obstructed, and we have an uncomfortable series of feelings which tell us that things are not going right. If we assist the efforts of nature, by promoting the obstructed perspiration, the body will very speedily return to its ordinary state. But, more than that, if we simply let nature alone, and merely keep ourselves out of the way of what has caused the irregularity, matters will in the course of time right themselves, and the disordered functions will work harmoniously again. Although, however, this may be the result where the body is robust and the disorder slight, it is by no means safe to leave even a common cold to cure itself, because, though the tendency of nature is towards self-restoration, frequently her unassisted efforts are insufficient to effect the object, and in the struggle other vital functions may be very seriously affected. And this leads to the consideration, briefly, of some of these functions in the proper action of which consists health, and the disordered working of which constitutes disease. There are many such, as nutrition, secretion, respiration, &c.; but it will not be necessary at present to do more than refer to the chief characteristics of the first of these—namely, the im-

portant function of nutrition. The whole vitality and power of the animal economy depend upon the waste which is constantly going on in the body being made up by the supply of new and healthy particles of matter, by means of the blood formed from the food taken into the stomach. There is not space at command in this pamphlet to describe the elaborate and beautiful processes through which the food passes between the time of its reaching the stomach and its being deposited, in the shape of muscle, bone, nerves, hair, or skin, in the various parts of the body where excretion has been taking place and renewal is required. It is sufficient for our present purpose to explain that the maintenance of the body in a proper and perfect state cannot continue unless these processes go on with regularity, and unless a constant stream of bright, rich arterial blood is kept flowing to every part of the system. Supposing any irregularity to take place in the many complicated processes which have to combine in action to produce the blood and carry it to its destination, the result is disease. This disease varies in kind and degree as greatly as it is possible to conceive. It may be a mere disorder created by breathing bad air or eating unwholesome food, which, the cause being removed, passes away in a few hours; or it may be an irregularity arising from some more subtle and permanent source, which, being undetected, the vitiated action remains unchecked, grows, and is strengthened, until it lays the foundation of painful and perhaps fatal maladies. As an illustration of these latter diseases, we may mention cancer, which is clearly the result of a disordered state of the nutritive functions. The blood, along with the healthy particles of matter which it conveys for the restoration of the body, also contains morbid and diseased materials, which are deposited and accumulated in some particular spot, until, in that spot, cancer manifests itself outwardly. Here we have an instance

both of disorder of the functions leading to active disease and of the life-preserving force of the system endeavouring to throw off that disease; for such an endeavour, painful and fatal though the result may be, the natural process of cancer really is.

Now this brings us to the conclusion that all disease (excepting external injuries, organic defects, and malformations,) is general and functional, and that local maladies are merely the outward manifestations of it. Cancer is a local disease, dropsy is a local disease, inflammation in any part is a local disease; but cancer, dropsy, and inflammation all originate in disordered functions, and these maladies merely indicate the internal disarrangement, just as the sparkling eye and the clenched hand denote the anger which agitates the mind. The cancer may be cut out; but the patient is liable to its return in another place. In dropsy the water may be removed, but it will accumulate again. Inflammation may be relieved by bleeding, but it will return again and again, until the internal disorder for which the heat is an outlet exhausts itself. Whoever, then, would successfully combat with disease must regard the local manifestations merely as indications of some internal functional disarrangement, and, moreover, as a proof that nature is active in correcting irregularity and needs assistance in the struggle.

This principle is the very foundation and basis of hydropathy. The practitioner who cures by means of water does not attack the outer indications of disease so much as those internal irregularities which experience has taught him are at the root of every malady however painful or dangerous. Some object to hydropathy because its remedies are so simple, so few, and so uniform. These very characteristics are a proof of its efficiency. In hydropathy there is not a different remedy for every complaint; but each disease is traced to its origin and treated on simple fundamental principles. Hydropathy cures by

taking every disease at its very source and foundation —not trifling with mere effects, but working at causes and rooting disease out of the system. To quote the words of the celebrated Dr. Edward Johnson— "Hydropathy begins at the beginning. It begins by correcting all the known causes of disease, and by surrounding the patient with all the known causes of health. These it intensifies and concentrates into one focus. In the centre, as it were, of this focus it places the patient. All the causes of health—all the known healthy influences—are accumulated and brought to bear upon him at once. Having thus corrected the causes of disease, it next proceeds to correct the nutritive action. It raises or depresses the circulation and respiration at will. It exercises complete control over absorption. It restores all the secretions, especially those of the bowels and skin. It has power to excite the action of the skin to an amount which is almost unlimited, and by increasing this one secretion preternaturally it has the power of diminishing the others in proportion, if that be necessary, since it is well known that in proportion as one secretion is in excess the others will be decreased." In brief, hydropathy is a power by means of which those lurking functional disorders which give rise to all diseases may be driven out of the body. And by a system of this kind can a radical cure of disease alone be effected.

The large hydropathic establishments at Malvern, at Umberslade Hall, at Matlock, and in many other localities, have already been alluded to. At these places, under the care of an able and experienced practitioner, the patient enjoys every possible facility for recovery. But unfortunately all these establishments are beyond the reach of a large class. The nobleman, the merchant, and the manufacturer can afford to go to one of these establishments and spend weeks or months there awaiting restoration to health. But for the great mass of the busy multitude in a

town like Sheffield, who have to earn their bread from day to day, it would be impossible to devote the time which must be spent at one of these establishments, even supposing that provision was made for them gratuitously. What is needed in each of our large towns is a local establishment, in which advice should be given, and those kinds of bath efficiently administered which it is not practicable for persons to provide at their own homes. So far as Sheffield is concerned, this *desideratum* is supplied at the bathing establishment of Mr. F. Smith, No. 119, Norfolk-street, where all the appliances necessary for the cure of disease on the hydropathic system are provided efficiently and with comfort. With the aid thus afforded, hydropathy is brought within reach of all; and persons in the humblest sphere of life may pursue the water cure without that cessation from labour and that excessive cost which up to the present time have formed an insuperable obstacle in the way of all those below the middle class of society.

We now proceed to describe some of the principal processes in use, showing how they are illustrative of the principles of health and disease already enunciated, and how they act in curing the maladies to which the human frame is liable.

Wet Sheet Packing.

In this process the patient, undressed, is enveloped tightly in a sheet which has been dipped in cold water and then wrung out as dry as possible. In this position he remains, swathed like a mummy, for a period varying from twenty minutes to an hour, until the effects which it is desired to produce have become apparent. Sometimes, however, as a preliminary process, it is found advisable, with persons of weakly constitution, to commence by placing a wet towel on the chest, afterwards one on both the chest and back, and so by degrees until the body may

safely receive the full benefit of the wet sheet packing.

Now there are no doubt some, even in the present day, who will feel a shudder of alarm at reading this description of the treatment to which patients are subjected under the hydropathic system. Visions of colds caught by wearing damp clothing or sleeping in unaired beds will rise up before them, and they will shake their heads in doubt and dismay. Whatever may be the effects of damp linen and unaired beds, wet towels and wet sheet packing are undoubtedly highly beneficial when properly managed and regulated under judicious advice. One simple fact is sufficient to prove this. Thousands of persons, of all ages, from the infant to the octogenarian, have been treated on this method for years. And what is the result? The system is found to be so beneficial that the practice of it is rapidly extending.

How does the wet sheet packing act in curing disease? It is not necessary or possible to explain minutely the action of every medicinal process. It is enough, ordinarily, if we find by experience that a certain mode of procedure results in curing certain diseases. But in the case of the process of wet sheet packing, not only does it act marvellously in removing some of the most deep-seated maladies, but we are able to trace in detail the manner in which that removal is effected.

One great principle of action developed in wet sheet packing was discovered by Dutrochet, but has been more completely examined and fully established by the celebrated Liebig, many of whose researches strengthen the fundamental truths of hydropathy. The principle referred to may be briefly described thus:—When the membrane of any animal has its two surfaces in contact with two dissimilar liquids, the inner surface being touched by one of the fluids, and the outward surface being touched by the other, a mutual interchange takes place between the two liquids. A portion of the liquid from the outer side

of the membrane passes through it and mixes with the liquid on the inner side, and part of the liquid on the inner side passes through and mixes with the liquid on the outer side. This is proved by a very simple process. Put some pure water in a basin. Place some water containing any soluble substance, as sea-salt, or the salts of arsenic or mercury, in a glass tube, and tie carefully over one end of the tube a piece of bladder. Suspend in the water that end of the tube which is covered with bladder, and we have the state of things described above. The bladder is animal membrane, and one of its surfaces is in contact with the pure water in the basin, while the other surface is in contact with a dissimilar liquid—the water in the tube containing salt, or arsenic, or mercury. The result which follows is very curious. Supposing that the water in the tube has been impregnated with arsenic, a portion of the arsenic and water descends from the tube, through the bladder, into the water in the basin, and at the same time a portion of the water in the basin ascends through the bladder into the tube to supply the place of what has descended. This process goes on till the water in the basin contains as much arsenic as the water in the tube. When the equal distribution has been effected, the interchange ceases. The liquids are no longer dissimilar; they have become alike. But supposing the water in the basin to be thrown away and replaced with pure water, and the tube still impregnated with the remaining portions of arsenic to be again suspended in the pure water in the basin, the process of interchange is renewed, and the arsenic again passes from the tube into the basin until the water in the basin again contains as much of it as the water in the tube. In the same way, by perseveringly emptying the basin and re-filling it with pure water, the tube may be drained of the arsenic, and the water in it be made, for all practical purposes, pure.

Now this is precisely the process which the wet sheet packing effects upon the human frame—the wet sheet being the basin of pure water which extracts the poison, and the body being the tube containing the poison to be extracted. It makes no difference to the action of the law exemplified in the above experiment whether the membrane be that of a dead animal, as in the case of the bladder, or whether it be that of a living being, as in the case of the skin of man. The result is precisely the same, and, in the latter instance, the consequences are most beneficial to the living creature. About 80 per cent. of the blood contained in the human body consists of water, and it is this water which holds in solution any poisonous or morbid compounds which may have found their way into the blood, where a large portion of all such substances go when they have passed into the system. If the blood, then, contains any poisonous or morbid compounds, the sheet containing pure water acts, by virtue of the natural law already described, as a medium for extracting the offending matter from the blood, while the pure water of the sheet passes into the blood to supply the place of the poisonous substances taken away. By frequently renewing the wet sheet, the blood may be completely purified, precisely in the same way as, in the experiment described, all the arsenic is removed from the tube.

What can possibly be more rational, more certain, more likely to be effective, than this process, founded as it is not only on experience but on firmly-established philosophical data? What process can more completely illustrate and develope the fundamental theory of hydropathy already alluded to—that instead of working at effects, the causes must be dealt with—that instead of trying to remove the outward manifestations of disease, those inner lurking irregularities in which they originate ought to be attacked? A vast number of maladies, of greater or

less virulence, arise from an impure state of the blood. Let the blood be thoroughly cleansed, as this process cannot fail to do, and all these diseases must of necessity be removed, because the origin and cause of them no longer exist. This removal of poisons and other impurities of the body by wet sheet packing might be fairly supposed to be a mere fanciful theory, were it not as fully proved as it is possible for any physical fact to be demonstrated. It is not founded simply on the *dictum* of Liebig, of even on the incontestible fact that the process *does* cure people of deep-rooted maladies. Any person may satisfy himself of the fact by the evidence of his own senses, without any scientific formula whatever. On the sheets in which patients have been wrapped are frequently perceptible, both to sight and smell, the poisonous and morbid matter which has been lurking in the blood and has been drawn forth from it. In this way mercury, sulphur, and even aloes and camphor, and many other substances, have been extracted in such quantities that there could not be the least doubt about it in the minds even of the least scientific.

Wet sheet packing may be described as one of the leading remedies of the hydropathic system. Besides the effect it has in removing unwholesome deposits from the system, it greatly allays excitement and irritation, and soothes the nerves. The first novelty of the process overcome, a most agreeable and refreshing sensation follows; and not unfrequently the patient falls into a delicious sleep whilst undergoing it.

The beneficial results which are here described can, of course, follow only from a reasonable and discreet administration of the remedy. In many diseases wet sheet packing is an invaluable adjunct to the other means of cure; but it must not be dealt with rashly. Many modifications are required in order to adapt the remedy to the particular disease,

and to the peculiar constitutional condition, of each individual patient. To be administered systematically with safety and benefit, the direction of an experienced adviser is therefore absolutely essential; and the same remark applies with more or less force to the other hydropathic remedies.

The Douche Bath.

The douche bath is a very powerful remedy, and one in the administration of which great care and caution are necessary. It is principally useful with persons who have a strong constitution, or with those whose bodies have gradually been hardened by the milder and less exciting remedies. This bath consists of a body of water falling from a height of about twenty feet, underneath which the patient stands and allows the water to come in contact with the various parts of the frame in succession. When properly administered, the douche bath is an admirable auxiliary. It is highly stimulating; it quickens the whole system into a state of activity, and increases the action of all the functions. There are also occasions on which the douche may be beneficially applied to particular parts of the body only. The general douche bath is valuable in cases where there are obstructions of the organs and they require stimulating into action, and also in some cases where, after disease has been removed, tonic treatment is required.

The pail douche is a modification of the above bath. The patient sits down and crosses his hands over his chest. A number of pails of water, to the extent ordered by the practitioner, are dashed over him in succession, alternately from the front of him and from behind.

The Cataract Bath.

This bath comprises a somewhat elaborate apparatus; but it may be simply described thus:—Two streams of water fall, one in front and the other be-

hind the patient. Neither of them touches his head, the stream behind first reaching his body at the shoulders, and the stream in front first coming in contact with the body at the top of the chest. This is a powerful remedy, and is stimulant and tonic in its operation.

The Sitz Bath.

This is a valuable remedy, and in frequent use in hydropathic establishments. The patient sits in a bath of water reaching up to his hips. The time of the application of this bath varies very greatly with the nature of the disease and the condition of the patient. Five minutes is about the shortest period, and from this it ranges as high as an hour and a half. This bath, besides being an admirable agency in the cure of many diseases, has a striking effect in soothing the nervous system. Nothing is more certain in inducing sleep. When a person is over-excited and sleep flies from his eyelids, he cannot do better than take a cold sitz bath of four or five minutes' duration.

Towel Friction

Is a valuable process for persons of a delicate habit. A towel is dipped in cold water, and then wrung out as dry as possible. The patient is rubbed with the towel two or three minutes, after which he is enveloped in a dry sheet and dried.

Foot, Hand, and Head Baths.

There are various baths in which these members of the body only are immersed. One form of the foot bath is to place the feet in cold water for five or ten minutes up to the ankle bones, the feet being rubbed against each other all the time, and afterwards dried with coarse towels. Another bath for the feet is to place them in water not more than an inch up the sides of the feet and barely covering the toes. After the feet have been in the water a few

minutes, they are lifted out one at a time, and the soles are rubbed well by the attendant with his bare hand. After this they are placed in the water for two or three minutes longer, again taken out, and rubbed till they are warm. Once more the feet are replaced in the water, where they remain two or three minutes. As a last process they are vigorously rubbed dry with a coarse towel. Those who are subject to cold feet will find this an excellent process for them on retiring to rest.

The hand bath consists in the immersion of the hands and feet both at once in cold water. It may with propriety be continued for ten minutes or a quarter of an hour. In cases of headache, or where there is general heat of the system, this process will have a cooling and soothing influence.

In the head bath the patient places himself on his back, and lays the back of his head in a shallow vessel adapted for the purpose and containing an inch or two of water. Ten or fifteen minutes is sufficient for the continuance of this bath. Another mode is simply to take a cap of suitable material and fitting close to the head, dip it in cold water, wring it out, and place it on the head for about an hour. There is also a process which Dr. E. Johnson styles the "head douche." The patient kneels down, stooping forward, and the assistant throws one or more pails of water against the back of the head.

The Shallow Bath.

This is a process of very general use in hydropathy, and was the favourite bath of Priessnitz, the founder of the system. The patient is seated in a vessel containing cold water eight or ten inches deep. He is sponged, splashed, and rubbed by the attendant, and sometimes the water is also poured over the shoulders and the head. The process may last from two to ten minutes. On leaving the bath a dry sheet is thrown over the patient, who dries himself with it, and then dresses to go out for a walk.

Wet Bandages or Compresses.

The wet bandage or compress consists of a piece of sheeting, doubled, and saturated with cold water. The principal of these compresses is one which extends over the abdomen; but in various maladies they are also applied to other parts of the body, in conjunction with the processes already or hereafter to be described.

The Dripping Sheet.

This is a mild and simple remedy, useful with weakly persons, or to strengthen the system for the more severe processes. The patient places round him, in the same way as a cloak, a large sheet dipped in water. He rubs the body well for a minute or two, and is then enveloped in a dry sheet or blanket, with which he dries himself.

Sweating Processes.

The baths already described comprise all the leading processes of the hydropathic system, with the exception of those for producing perspiration, which we are about to allude to. There are, however, many modifications of these baths; there are two or more of them sometimes used in combination; and there are also many minor processes which it would not come within our present limits to describe in detail. Nor is it necessary to do so, as a minute account of all the various processes could only be interesting to the professional student. Those by whom they are practically required can obtain the benefit of them at Mr. Smith's establishment, where they are all administered in the modes approved by the most eminent hydropathic practitioners of the day.

But there is another series of processes equally important. One of the fundamental principles of cure in hydropathy is by profuse perspiration. Nothing can be more rational than that the over-clogged system should be relieved and disease removed by

perspiration. The old and worn-out particles of the system are constantly being thrown off in the insensible perspiration which is continually going on ; and there can be no doubt that, when certain diseases have set in, processes which accelerate the efforts of nature to throw off morbid matter at the pores of the skin must be highly beneficial.

There are several methods in use, in the various hydropathic establishments, for inducing perspiration. One of the most common of these, and the oldest, is the blanket pack. In this process the patient is enveloped in a dry blanket, in the same way that, in wet sheet packing, he is placed in the sheet. Over him are put four or five more blankets, doubled up, and on the top of all a light feather bed or eider down quilt. The great point in this process is to keep the upper end of the body so that neither the hot air from within can escape nor the cold air from outside can get in. When the patient is, constitutionally, pretty strong, cold water may be freely given him to drink, and this will greatly quicken the breaking out of the perspiration. But the process is at the best a tedious one.

Another mode of producing perspiration is by means of a spirit lamp. Where there is no special apparatus for the purpose, the patient seats himself on a chair, and is enveloped in a blanket, the outside air being further excluded by coverlids, rugs, and cloaks being placed round the blanket. Underneath the chair is placed a lighted lamp or saucer containing spirits of wine or rectified spirits of naphtha. This, by creating great heat within the blanket, causes profuse perspiration ; but the process is open to some objections.

There are some other methods,—as the hot water bath, the gas jet, foment pack, &c. ; but it is not necessary to detail them, as they are in a great measure superseded by the processes about to be described.

The Vapour Bath.

This is a very valuable process, and may be used with great advantage for producing perspiration, under proper advice. The principle of it is extremely simple, but care should be taken in its administration. The patient is placed inside a framework, in which all but his head is secured from the outer air. He is then subjected to the action of a volume of steam which is poured into the lower portion of the interior of the framework, being arranged of course so that it cannot scald any part of his body by coming immediately in contact with it. Only about ten or twenty minutes will be required to produce perspiration, which may be safely kept up for some ten minutes longer. The process is accelerated by the patient sipping cold water.

This process is valuable in a large number of diseases, and is a powerful adjunct to other remedies. But it frequently happens that persons to whom this bath would be most useful are afflicted with maladies which prevent them from leaving their houses. In such cases Mr. Smith supplies from his establishment portable baths. Every necessary direction is given, and, if desired, an experienced attendant will accompany the bath to superintend its administration.

The Russian Bath.

This is another mode of producing perspiration, and a very pleasant and grateful process to the bather. It is founded, as its name indicates, upon the method adopted by the Russians. The mode in use amongst that people, where the bath commonly prevails, is to raise a vapour, amongst which the bather places himself, by pouring water over a heated stove. If the perspiration does not come freely, the bather (according to Sir George Lefevre) permits himself to be beaten "with bunches of brushwood, with the dried leaves on, till he becomes as red as a lobster. Then a bucket of warm water is poured over the

head; then a second bucket, less warm; and a third, quite cold; then towel the body well, and the business is over." We have somewhat improved upon this mode of administering the bath; but the principle is the same, and to Russia is due the credit of it.

The bather is introduced into a small comfortable apartment, heated to a pretty high but not uncomfortable temperature, and with an apparatus by which the heat can be gradually increased or diminished at the pleasure of the bather. In the course of from fifteen minutes to half an hour, with the aid of draughts of cold water, the bather finds himself in a profuse perspiration. He then goes into another room, where there is an apparatus for a cold shower bath, the force of which he can regulate at pleasure. The sensation of cold following upon the excessive heat is most pleasant. The bather either retires from the bath immediately after receiving the stream from the shower bath, or, otherwise, remains and has another. If he has the second shower, he is able the more quickly to leave the bath for the streets.

The Turkish Bath.

But of all the remedies which have been introduced into the system of Priessnitz, there is none equal to the Turkish bath in importance or in its rapid spread in popular favour. The one is due to its valuable curative properties, the other to the great personal comfort and enjoyment of which it is the cause.

This bath is the invention of that people, so ingenious in everything that conduces to comfort and luxury—the Turks. It is well worthy of the people who gave birth to that gorgeous series of romances—the "Arabian Nights." In no other country could such a process have originated. All other methods of ablution are insignificant by the side of it, in point of cleanliness. In this respect it is characteristic of the Turks. We have a proverb that

"Cleanliness is next to godliness." But the Turks go far beyond that. Cleanliness is *part* of the religion of Mahomet. Periodical ablution is to the orthodox Turk as essential as prayer or faith. And nothing can be more complete or thorough than the ablution in which the Turks indulge. We say "indulge" advisedly; for a more delicious process cannot be conceived, and the health-yielding properties of it are equal to the enjoyment it affords.

The bath is similar in its essential characteristics to that adapted from Russia, but is much more elaborate and more searching in its powers of cleansing. The bather is introduced into a room filled with heated air of a temperature of some 90 degrees, about as hot as the broad glare of sunshine in our own country during the dog days. As soon as he has become well accustomed to this degree of temperature, he is taken into another apartment heated very much higher, varying with the requirements and at the pleasure of the bather; but the general average heat which is found to be sufficient is 150 degrees. This is a very high temperature, and a person strange to the process would at first think that it could not be borne by the human body. The seats in the room and the walls are so hot as to be at first painful to the touch; and even after the body has become accustomed to the temperature the hair is quite unpleasantly hot when felt with the fingers. Yet lower than 150 degrees is seldom required, and not unfrequently bathers desire it much higher—occasionally as high as 200 or 250. The manner in which this great accession of heat is borne not only without injury, but with positive benefit, is evident upon a little consideration. That strong principle of vitality which exists in the living frame preserves the body amidst the most opposite varieties of temperature. In an atmosphere which would freeze water into a solid mass, the only result on the human body is to quicken the activity of the organs. In an

atmosphere which would "cook" raw meat, the only result upon the human body is to send out a profuse perspiration. By these two modes does nature provide for the opposite extremities of temperature. The blood of those living at the North Pole is of precisely the same temperature as the blood of those living at the Equator. As to the extremes of heat, the height of temperature which the human body will bear without danger is hardly credible.

The object of all this heat to which the body is subjected is to produce profuse perspiration. The time required for this varies with different persons. In some, from constitutional causes, perspiration is difficult to produce; others are prone to perspire, and it comes very speedily. It may generally be remarked, however, that perspiration is much more easily induced as persons become accustomed to the bath. When the bather perspires freely, he is in a proper state for what those accustomed to the process describe as the "luxury of luxuries." In other words, the "shampooing" begins.

The shampooing is rather a curious process. The bather lies down and resigns himself to the mercies of his attendant, who rubs, tickles, rolls, kneads, and scrubs his prostrate body—just in fact as though it were a lump of delicate manufactured material, and required manipulating into some particular shape. This initiatory process over, the bather is permitted to regain his feet, and—oh, delicious sen-sensation!—a gentle, rain-like shower of warm water is wafted over him, as upon a delicate hot-house plant. But it is not half finished yet. In spite of the effect which the perspiration has had in loosening the dirt accumulated on the skin, there may still be some lingering atoms. A profuse lathering of soap is rubbed over his body. Then he is scrubbed from head to foot with a flesh brush. Then he is laved with water again. Finally he is placed under a shower bath of warm or cold water, according to

the bather's choice, and after this refreshing termination to the process he retires to another room that is moderately warmed, where he reclines till he is cool enough to go back to the air of the outer world. The refreshing lightness, the sense of perfect bodily purity, which result from this bath, can only be realized by those who have undergone the process. The skin, to quote a description which has been given of the effects of this bath upon it, becomes "as soft as velvet, as smooth as marble, and as sleek as satin."

Some of the advantages of this bath are obvious to every one; but it possesses many virtues besides those which are patent to the cursory observer. We have adverted to it as a luxury—a source of pleasure. It now remains to consider it as a preventive and a means of cure.

We may always learn something by observing the habits of savage people. In the progress of civilization we often get too artificial and lose sight of simple processes which would be far more effectual than the far-fetched and abstruse remedies evolved by chemical science. The royal leper was admonished of old, "If the prophet had bid thee do some great thing, wouldst thou not do it? How much rather, then, when he saith to thee, wash and be clean!" We are too much in the same mood in the present day. We are apt to place too great reliance on recondite scientific remedies, to the neglect of those offered by Nature. In her sublimest moments Nature is always the simplest, and her greatest remedies are invariably the easiest reached and the most abounding. To us, with our artificially produced notions, how hard to believe that a simple element like water, which, from its very abundance, we thoughtlessly waste as though worthless, contains, in its various modifications, the means of cure for most of the diseases to which man is liable! Yet how reasonable in itself—how like the customary

operations of Providence, that, the seeds of disease being so thickly sown, the remedy should be still more simple and abundant! How unlikely, on the contrary, that, in order to obtain a cure for many of the maladies which man has inherited from Adam, the human race should have to wait for minerals to be dug up from the bowels of the earth, till minute and tedious scientific researches have been gone through, till a whole armoury of lancets and knives have been invented to work with upon the unhappy frame of man! The savage nations found out how to cure disease long before medicine became a science. The North American Indians have anticipated us in our curative use of the Turkish bath. Their process is rude, it is true; but it comprises all the essential properties of the bath, and must have effected many a capital cure. Mr. R. B. Gent, in his "History of Virginia," thus describes the process:—"The doctor takes three or four large stones, which, after having heated red hot, he places in the middle of a stove, laying on them some of the inner bark of oak, beaten in a mortar to keep them from burning. This done, the Indians creep in, six or eight at a time, or as many as the place will hold, and then close up the mouth of the stove, which is usually made like an oven in some bank near the water side. In the meantime, the doctor, to raise a steam, after they have been stewing a little time, pours cold water on the stove, and now and then sprinkles the men to keep them from fainting. After they have sweat as long as they can well endure it, they sally out, and (though it be in the depth of winter) forthwith plunge themselves over head and ears in cold water, which instantly closes up the pores and preserves them from taking cold." The aborigines of Australia, of New Zealand, and other savage nations, have curative processes, different of course in detail, but in which the main principle is precisely the same.

The processes adopted by these people in the

savage simplicity of nature, are, in the Turkish bath, elaborated and refined more extensively than would be possible, or perhaps desirable, in their primitive state. Looking at the advantages of the bath in a medical point of view, whether for prevention or cure, the foundation of them all is undoubtedly in the profuse perspiration which is aroused, the importance of which, as a means of removing certain diseases, has already been hinted at. People generally are apt to underrate the importance of keeping the skin thoroughly cleansed. They imagine if they keep their hands and face clean, and wash themselves "all over" occasionally, they satisfy the demands of cleanliness. Nothing can be a greater mistake, as every one who has seen the impurities which are washed off the body in the process of the Turkish bath will readily admit. The skin *breathes* as distinctly as the lungs do, and it is as necessary that a free supply of atmospheric air should be supplied to it. When the pores of the skin are clogged up with accumulations of dirt, this cannot be, and disease is the inevitable result. The danger of choking up the pores of the skin has been strikingly shown by the French chemist, Fourecaulet, who covered the skins of several animals with varnish. They all died from suffocation, just in the same way as though the lungs had been stopped up from the air. The same principle operates in smallpox. When the pustules break the skin becomes covered with a substance like varnish, and this is generally the dangerous stage of the disease. In burns, again, the danger is proportionate to the extent of the surface injured, owing to the pores of the skin being stopped up by the burn, and the air consequently being excluded. Fourecaulet, amongst his other experiments, showed that a partial stopping up of the skin is productive of various diseases, more especially of scrofula, and its deadly attendant malady, consumption. This is borne out by the fact that amongst the Turks, with

whom excessive cleanliness is a religious observance, scrofula and consumption are almost unknown. But the importance of a constant and thorough cleansing of the skin is evident, without scientific experiment or hypothesis, when we consider the nature of it and its uses. The skin, it is calculated, contains three thousand pores to every square inch. In the whole body there are some twenty-eight or thirty miles of these minute yet distinct outlets. Without cessation, day or night, each of these pores is constantly perspiring; in other words, it is a medium through which is got rid of that dead and refuse matter that is constantly being thrown off by the system. In an average-sized person, two or three pounds of this effete matter is thrown off every twenty-four hours in the shape of insensible perspiration. If this perspiration is not regularly washed off, some of it adheres to the skin and is re-absorbed into the system, while other portions choke up the pores and prevent the free outlet of future perspiration.

Here, then, we see the value of the Turkish bath, both in health and disease. In health, nothing can be so complete a purifier of the skin and so perfectly clear the way for the outlet of those impurities which must be freely emitted, if the body is to be retained in health. It is an admirable preventive, too, and its periodical use tends to prevent the colds which ordinarily follow from exposure to those sudden changes of temperature which cannot always be avoided. Those who have enjoyed the Turkish bath, notwithstanding the high temperature to which they have been subjected, do not find it necessary to cloak themselves up upon re-entering the chilly air of the streets. The change of temperature is pleasant to them, and they run no risk of catching cold. Perhaps it will be as well to say a word or two here in respect to the transition of the bather, while in a state of profuse perspiration, from the atmosphere of a room heated to 100 or 150 degrees, to

the shock of the cold shower bath. It may surprise those who are unfamiliar with the hydropathic system to learn that this is done not only without injury but with great benefit; nay, more, that the majority of the water processes—the wet sheet pack, the blanket pack, the vapour bath, &c.—are usually followed by a cold bath, and that even with weakly patients the cold is productive of good. Upon this point it will be best to cite the authority of the eminent Erasmus Wilson, he being *not* a hydropathic practitioner. Mr. Wilson says :—"It is incorrect to suppose that any danger is likely to result from cold affusion (or pouring upon) when the skin is in a state of excitation, and the nervous powers at their natural standard or elevated above their normal range. It is only when the body is chilled, and the powers of the nervous system are depressed, whether from moral or from physical causes, such as fatigue or disease, that any ill consequences can accrue. Dr. Currie, many years since, pointed out the importance of cold affusion in the hot stage of fever, and pursued the practice with success. Cold never injures the body when acting as a stimulant. It is only when it acts long upon the surface, and robs the latter of its heat, that cold is injurious. The youth of Rome, to avoid the dangers arising from cold, were wont, after their contests on the plain of Mars, to leap into the Tiber. By this practice they checked and removed the perspiration from the skin, prevented its slow evaporation and the cold engendered by that process, and caused a healthful reaction." According to this, the only conditions under which the cold bath can be injurious is, "when the body is chilled and the powers of the nervous system are depressed." But these are precisely the conditions which are removed by the early stages of the Turkish bath. It is said that the Russians, even children, roll in the snow after their bath. This is not well authenticated; but there seems little reason to doubt it, for Dr

Brereton tells us, that last winter persons were in the habit, after using the Turkish bath at his establishment, of jumping into a bed of snow which had been collected for the purpose in the back yard. Dr. Brereton adds, "I have myself spent the whole night in the woods at Blarney without any clothing save the bath sheet, after coming out of Dr. Barter's bath at that place. This was after a ball, when, with several other gentlemen, I retreated to the bath for the sake of refreshment from fatigue. So delightful was the cool air that, when far away from any dwelling, we threw aside even our sheets to enjoy the morning breeze at day-break." We should not recommend any participants of the Turkish bath, whether patients or in health, to emulate this somewhat eccentric mode of enjoyment; but, at all events, it shows how little risk there is of catching cold from a change of temperature.

The Turkish bath, as a remedial process, possesses many peculiar advantages. Most of the other processes for producing perspiration are to some extent objectionable. The oldest is the blanket pack, which has already been briefly adverted to. In this process the body is enveloped closely in blankets; the animal heat which is constantly passing off from the body, accumulates between the body and the blankets; and in progress of time nature relieves itself by perspiration. But this is a very slow process, the average time that elapses before the perspiration breaks out on the face (which is considered essential) being from two to three hours. It is also imperfect, and it is in some respects prejudicial, the noxious effluvia from the body vitiating the surrounding atmosphere and saturating the perspiration with the impurities emanating from the body. Another of the applications for inducing perspiration is the spirit lamp process, which has been already described. But the last-mentioned objection urged against the blanket pack applies still more strongly to this process. In

order to support combustion, the air has to be burnt; and the atmosphere contained in the limited space within which the patient sits, becomes vitiated not only with the impurities from his own body but with the noxious products of combustion. The Russian bath and the Turkish bath are free from these objections, and are highly useful in various kinds of diseases, as a means of cure. As compared with the blanket pack, the advantage of them is immense, because instead of the patient having to lie constrained in one position for two or three hours, perspiration is induced in these baths in less than half an hour. One great improvement, both in a medical point of view and as adding to the comfort of the bather, has been made in the Turkish bath since its introduction into this country. In the bath as administered in Turkey, both in the heating room and at the washing fountains steam is generated. This is both unpleasant and injurious to those who are in a weak state of health. Accordingly, in the more recently-constructed baths in England, no steam is perceptible to the bather. The consequence is that the process is much more pleasurable, and it possesses considerable additional curative advantages.

It is sometimes urged against the Turkish bath that it may be very well suited to the luxurious habits of the inhabitants of a hot climate, but that it is enervating and debilitating in its tendencies, and that we do not want it in this country. Even supposing that there is any force in this objection, it must be recollected that it only applies to the regular use of the bath while in a state of health. As a cure for disease, this argument, or rather assumption, does not affect the question at all. But we assert that the Turkish bath is valuable, not only as a remedy but as a means of preserving health. It is idle to theorize in the face of experience. One well-authenticated fact is worth a hundred assumptions. There are now thousands of people in this country who are

in the habit of using the Turkish bath regularly. The evidence unmistakably afforded in their persons is that the bath, so far from being enervating and debilitating, has a directly contrary effect. By thoroughly cleansing the skin, and by guarding the body from the dangers attendant upon sudden changes of temperature, the Turkish bath has a distinct and immediate effect in preserving health. "The rule with me," says Dr. Barter, "is to put the weak people in the Turkish bath often, as I find that the action of its temperature is favourable to growth and nutrition. Increased temperature is in fact highly necessary to animal welfare, and prepares the system to receive, with *certain* benefit, the full tonic influence of cold; so that high temperature, as used in the bath, acts in the double capacity of first giving the invigorating influence of nature's own stimulant, and thus ensures the subsequent reaction of cold air or water. These, acting in their own peculiar manner, seal the effects of temperature, and render its tonic influence permanent."

Results of Hydropathy.

After all, the ultimate question in respect to hydropathy, as in respect to every other medical system, is simply this: What can it do? The aim and end of all medical science, however profound and elaborate, are simply to enable the practitioner, when he is called to the bedside of the sick, to cure with something like certainty the malady from which he finds the patient suffering. The most profound learning, if it fail to enable the practitioner to do this, is only quack learning. The most humble acquirements, if they but accompany practical skill in the curing of disease, comprise true medical science. Without attempting invidiously to show what other systems of medicine cannot do, it is enough for our present purpose to show what hydropathy *can*. For most of the diseases which affect humanity, we

affirm that hydropathy, in its different modifications and with the adjuncts which the experienced practioner adopts, is a safe, radical, and certain remedy.

We ought never to lose sight of the fact, which has already been prominently enunciated and which cannot be too strongly insisted upon, that hydropathy cures, not by working merely at the outward manifestations of disease, but by completely rooting it out of the system. It may be at once admitted that in deep-rooted maladies the hydropathic process is somewhat slow in effecting a cure. But how can it be otherwise, bearing in mind that it attacks disease at its very source and leaves the system free and healthy? This absence of haste is perfectly in accordance with all the laws of existence. Were it otherwise with hydropathy it would give fair ground for suspicion that it is not in accordance with the true and legitimate operations of the Creator, as shown in the experiences of life. Nature never hurries. The acorn, planted in the ground, seems buried and lost; but in Nature's own time it springs forth a feeble shoot. Not all the efforts of man can do more than protect it from harm and stimulate its progress, while it slowly and imperceptibly, but as surely as the planets in their course, grows and is nourished till it becomes a giant oak. We can no more hasten the curative process in man than we can speed the growth of the acorn. When disease, in the progress of months and perhaps of years, has rooted itself in the system, the eradication of it must surely be also the work of time—that is, if it is really to be extirpated from the body, and we are not content with merely damming up the outward irruptions of disease.

That the water cure, when it is effectually practised and is persevered with, does really root out disease, no one can doubt who has watched the working of the system in a candid spirit. Many who have been treated hydropathically for specific maladies have found themselves, upon the completion

of their cure, better in their general health than they had been for many years previously. This arises from the fact that, while searching out and removing the irregularities that have caused the particular diseases under which these persons have laboured, the water process has at the same time given tone to the system, strengthened the action of the organs, and so purified the working of the nutritive functions that a renovated supply of pure rich blood has been furnished to the body. This result is, in fact, to a large extent identical with the process of cure, and cannot be separated from it. The searching and radical nature of hydropathic remedies is evident from the phase which every patient, before recovery, goes through under a regular course of treatment. We allude to what, in hydropathic books, has been technically termed "crisis." Now this "crisis" would to the ordinary observer appear to be, always a disease, and occasionally an alarming disease. Sometimes it consists of an eruption or rash, sometimes in boils, sometimes in an abscess, sometimes in diarrhœa. Now, to call these diseases would be very incorrect, and yet scarcely more so than to call an ordinary fever or inflammation a disease. In these latter cases the real disease lurks unseen in the system, and the fever and inflammation are only the signs that Nature is endeavouring to throw it off. In the crisis produced by water treatment the result is the same, only when it is brought about by the curative agency of the water the symptoms are not nearly so violent as when they arise from the unassisted efforts of Nature, and it is a certain and unerring sign (assuming of course all to go right) that the patient is on his way to recovery. An American writer gives a curious account of the manner in which the crisis was looked upon at the establishment at Grœfenberg, under the superintendence of Priessnitz himself:—"It is really amusing to observe with what anxiety the crisis is looked for by the patients. In most

cases it proves the harbinger of a good cure. The patients themselves are constant witnesses to this fact; and it is no wonder, therefore, that they should look forward with pleasure and hope to its advent in their own persons. A patient is no sooner missed from the table than the question goes round, 'Has So-and-so got a crisis?' And if the reply be in the affirmative, the report spreads like the news of a fresh victory, and his friends assemble round him, not with long faces to condole with him, but with merry smiles and laughing jests to congratulate him on his happy fortune."

Hydropathy does not profess to be a panacea for all the bodily ills that afflict humanity. The powers of the water cure, like those of every other medical agency, are confined within certain known limits. But it can do much. Take consumption, for instance. All recognized medical writers tell us that no certain cure has been discovered for pulmonary consumption. It is not professed that hydropathy supplies this desideratum; but it can do a great deal to prevent the setting in of the disease and to prolong life when it has set in. A few words in explanation of the nature of pulmonary consumption and the manner in which it attacks the system, are necessary in order that the reader may fully understand the benefits to be derived from hydropathy in connection with this deadly malady. There are particular constitutions which are peculiarly liable to consumption. Some are so predisposed to the disease that there is scarcely a hope for them under any circumstances. Others, though the malady may at any time break out in them should they be placed in circumstances favourable to its development, are so constituted that by extreme vigilance in the adoption of precautionary measures the dreaded disease may be warded off for many years, and in some instances may be entirely prevented. It is in respect to the latter class of persons that the hydropathic treatment is peculiarly

valuable. Those who are only superficially acquainted with the character of pulmonary consumption are apt to consider it simply as a disease of the lungs. This is a great mistake, and leads to fatal errors as regards the principle of prevention. It is true that the malady fastens on the lungs, and it is in this stage that it becomes palpably visible, and fatal; but such is only the last manifestation of that which has long been lurking in the system, and which by timely measures of precaution might, perhaps, have been altogether rooted out. The main point to be regarded with persons of a consumptive constitution is to keep up the vital energy and avoid anything which will lower the tone of the system. Much may be done by ordinary measures of temperance and prudence, such as adopting wholesome diet and taking proper exercise, avoiding late hours, habits of dissipation, &c. But the water system, judiciously applied, will do much in aid of all this. We have already shown how several of the processes, but more especially the Turkish Bath, purify the skin, remove the accumulations of morbid matter which necessarily collect upon it, and make a free passage for that respiratory process which must take place through the pores of the skin as well as through the lungs, if the body is to be maintained in health. By cleansing the skin and increasing its healthy action, not only are the lungs assisted by having more of their respiratory labours performed by the skin, but the blood is purified and sent in a richer and more rapid current to nourish every part of the body. Both these results are essentially important to the consumptive constitution. By removing a burden from the lungs, it is clear that this organ, which is the part fatally attacked in consumption, is rendered less liable to the inroads of disease. By increasing the purity and richness of the blood, an equally or perhaps still more valuable result is secured, because consumption is to a very large extent a disease of debility,

and while the vital tone of the system is kept up it can hardly suffer a fatal attack of this malady. When the scrofulous habit of body which constitutes the consumptive constitution has once degenerated into the settled formation of tubercles on the lungs, there is scarcely a hope for the patient, though even then not a little may be done by means of hydropathy to alleviate his sufferings, and even to prolong life. But this disease, which is so deadly, usually comes on by progressive though very marked stages, and the malady may not unfrequently be arrested even after very alarming symptoms have manifested themselves. Dr. Gully describes two most remarkable cases, one of cure and the other of considerable prolongation of life. The first instance was that of a woman aged 32, who manifested all the symptoms of incipient pulmonary consumption. She had profuse night sweats, great emaciation, breathing short and bad, an incessant cough ; and the stethoscope showed the existence of tubercles on the lungs in a crude state. She went through the hydropathic process, consisting of the dripping sheet, cold sitz bath, &c., and in the course of rather more than six months her cough and night sweatings had disappeared, her breathing became strong enough to enable her to ascend a hill, and she had recovered her lost strength of body. In fact she was so completely cured that she officiated as bathwoman to some of Dr. Gully's patients. The other case is perhaps still more extraordinary as showing how life may be prolonged even after the disease has set in in its most deadly and malignant shape. The case was that of a young lady, three of whose sisters had died from pulmonary consumption. Besides suffering from the ordinary symptoms which accompany this disease, the stethoscope showed the existence of an ulcerated cavity (from tubercles), on the left of the lungs, as large as a small orange. Several medical gentlemen examined the patient, pronounced it to be a true case of tuber-

cular consumption, and said that in all probability she could not live more than from two to six months. Under the hydropathic treatment the progress of the disease was so far delayed that she lived, almost without pain, two years and four months. What would we not give for a respite of two years and four months in many a case where the life of a beloved friend or relative is threatened! Dr. E. Johnson also mentions the instance of a young lady who was suffering severely from the symptoms of incipient consumption, but under the hydropathic treatment these distressing manifestations of disease left her, and she was restored to her ordinary health. In this case, in all probability, tubercles would have formed in a short time but for the remedial treatment to which she was subjected.

Much more might be said upon the value of hydropathy in consumption—a malady of such peculiarly painful interest to the inhabitants of England; but space will not permit, and we must proceed to a brief consideration of some other diseases. Let us take one of the most common and most deadly maladies, of which there are so many varieties, and to which the human race in every part of the world is subject —fever. In this terrible visitation, and even in the most malignant forms of it, we must still refrain from the common mistake that the excessive heat is a disease. It is merely an indication, a result, of the actual malady—a sign that some deadly foreign matter has become lodged in the frame, and that nature is making this violent effort to throw it off. In this case, as in many others, the application of cold water furnishes such a stimulus to the natural preservative efforts of the frame, as will, except in cases where the patient is of weakly constitution, or suffering from other disease, probably lead to a cure. Nothing can be more striking, under this head of the subject, than a case which is given by the eminent Dr. Currie, in his "Medical Reports," as illustrating the

value of cold water treatment in fever; and the worth of the testimony is immeasurably increased from the fact that neither Dr. Currie nor Mr. Dalrymple (by whom the case was communicated to Dr. Currie) had any leaning at all towards hydropathy, being both practitioners under the allopathic system. Mr. Dalrymple describes at considerable length the condition of his patient. He was a strong lad of sixteen, and he was suffering under malignant typhus fever, for which Mr Dalrymple applied the usual remedies of the profession; but the disease, instead of being abated, grew gradually worse, until, at the end of six days, the patient was delirious, had violent pains in his head and a dark brown crust on his tongue, could not bear a lighted candle in the room, his pulse being raised to 120 and the heat of his body increased to 108 degrees. Mr. Dalrymple very naturally looked upon his patient, whom he had hitherto treated merely according to routine, as almost without hope. As a last resource, he determined to have recourse to cold water. The result shall be told in his own words:—"Under these circumstances I determined to make a trial of the cold affusion, a remedy I considered as still in reserve, and which I had hitherto been deterred from employing by the moderate state of the animal heat. As soon, therefore, as the necessary conveniences were prepared, he was taken out of his bed, conveyed into an adjoining room, and before he was aware of what was intended against him, a pailful of cold water hastily poured over his naked body. The shock was unexpected and severe. He started from his seat as the water was falling upon him, and endeavoured to make his escape; but being restrained, he wrung his hands, wept bitterly, and earnestly entreated he might be permitted to return to his room. Wrapped in his blankets, he was conveyed back to his bed. A few minutes afterwards his pulse was examined, and was found to beat 100 strokes in a minute; his

heat, which an accident prevented me from accurately examining, was most sensibly diminished; his mind became calm and clear; he expressed a feeling of deep regret for the trouble he had occasioned to those about him; he drank a glass of warm wine and water, and in about half an hour sank into a deep sleep, in which he continued nearly eight hours. When I saw him the following morning, his skin was moist and cool; his pulse 96, and firm; his thirst gone; the pains in his head removed; his countenance was cheerful, his intellect collected and composed, and he appeared only like one suffering from extreme debility. But in the course of the day his heat again increased; in the evening his pulse was quickened to 108 strokes within the minute; his tongue was dry and thirsty; he became restless and anxious, and complained considerably of his head. His body therefore was ordered to be sponged copiously and frequently with a mixture of cold vinegar and water, and, although he had once expressed very violent dislike for the remedy, he now submitted himself to its application without reluctance, and derived from it effects at once agreeable and useful. He slept soundly and perspired gently during the night; awoke in the morning refreshed and free from fever; the dark brown crust had left the edges, and was quitting the middle of his tongue; his pulse beat 90 strokes, and firmly; the pains in his head were removed; he ate his food with appetite and relish, and with a few slight checks and interruptions eventually recovered his ordinary state of health."

Nothing can be more remarkable than a cure like this, so clearly following upon the cold water remedy. But it will be at once evident that the means applied was of rather a primitive and hap-hazard character, much the same in fact, when contrasted with the regular hydropathic processes, as the steam bath of the North American Indian compared with the modern Turkish Bath. If the constitution of the

patient had not been very strong, so violent a remedy would have done him harm instead of good, and might indeed have caused his death. As, however, he was strong enough to bear the shock and reaction which followed, it had the desired effect, and the disease was expelled. But how much more likely to be successful are the mild and modified processes in use in the hydropathic system, which can be varied so as to suit every constitution and every modification of the disease. The general course of treatment to be adopted is wet sheet packing, the pail douche, sponging the body, wet cloths to the head, &c.

Take again inflammation of the lungs, another dangerous malady. In this disease the action of the heart, as shown in the quickened pulse, is immensely increased; and the first object of the medical man is to diminish it. The ordinary mode of doing this is by bleeding. Without entering into any argument to show the fallaciousness of a dependence upon bleeding as a means of removing inflammation, it will be sufficient to say that every hydropathic practitioner has found the use of water to be infinitely more certain and effective. It is found that the continued application of cold water to the body diminishes the pulsation of the heart in a most remarkable manner. Dr. Currie gives a series of experiments which prove this very clearly. After detailing his experience, he says, referring to one of the patients who had been immersed in cold water, "the pulse never was below 85 before immersion, and generally above it. However that might be, it invariably sank to 65, or from that to 68, in the water, and became firm, regular, and small. After being long in the bath, it could hardly be felt at the wrist; but the heart pulsated with great steadiness and due force." After commenting on the value of this simple remedy, by which the pulse may be lowered with such certainty, Dr. Johnson says, "Were I *myself* to become the subject of inflammation of the

lungs, I would at once be placed in a cold bath up to the throat, properly supported by some contrivance; and there I would remain till my pulse fell." Dr. Johnson here is of course speaking of himself as a robust and healthy man. With a strong constitution, such a mode of treatment would be perfectly safe, and would, in the course of nature, lead to a speedy cure. But the process is too severe to be universally adopted. Many patients who suffer from inflammation in the lungs, could not with safety be treated in this way. Still the principle of cure is the same with all; and the many modified processes which have already been referred to, furnish ample means, in the hands of the skilful practitioner, for expelling the disease even from persons possessed of the most weakly constitutions.

Dropsy is a disease which is very ineffectively treated under the routine practice. It consists, as everybody knows, of accumulations of water in various parts of the body, as under the skin and in the chest; and the object of the practitioner of course is to remove the liquid which has accumulated and to prevent it from collecting again. The orthodox way of treating dropsy is by a system of drug medication, by blood letting, and by tapping. The drugs are admitted to be not only in some respects injurious, but also uncertain in their operation. The other two remedies merely temporize with the difficulty; for the water always accumulates again. Blood-letting has also this additional disadvantage, that it further enfeebles a system already necessarily attacked by weakness. Hydropathy acts in this disease in as rational and effective a manner as we find its operation to be in other maladies. The process cannot be better described than in the words of Dr. Johnson :—"The organ through which the hydropathic treatment proposes to get rid of the accumulated water is the skin. Here is an organ of vast extent, capable of

throwing out an immense quantity of fluid, and one by exciting which you can, comparatively, do no harm, since it is not a vital organ. Sweating does not impoverish the blood like bleeding, as it only carries out of the body the watery parts of the blood, leaving the vital and nutritious blood still in the system. The object of blood-letting is to induce the veins to supply the place of the lost blood by sucking up (which it is known they will do) an equal quantity of the dropsical fluid, thus diminishing the dropsical accumulation to that extent. But no patient could bear to lose a quantity of blood equal to the whole quantity of dropsical effusion. When, therefore, as much blood as the patient can bear to lose has been abstracted, and the veins have sucked up an equal quantity of dropsical fluid to supply its place, there is still left a quantity which the veins cannot suck up, because they have already sucked up all they have lost, and, therefore, all they want; and there is nothing now to induce them to suck up any more. Another evil is this, that a given quantity of mere dropsical water is substituted for a given quantity of red, nutritious, vital blood—viz., whatever quantity it was which had been abstracted by blood letting. This objection does not apply to sweating. Sweating abstracts only water from the blood, and the veins supply its place by sucking up the water which constitutes dropsy. Thus, water supplies the place of water. But by blood-letting mere water is made to supply the place of red vital blood. Again, blood-letting can only be carried to a limited extent, whereas sweating, judiciously managed, can be carried to a very considerable extent without injury." In illustration of the efficacy of this mode of treatment, Dr. Johnson gives the case of a gentleman who was so severely afflicted with dropsy, arising from organic disease of the heart, that he had been given up as incurable by three eminent London physicians. Under these circumstances, after all the ordinary

means had failed, he tried hydropathy as a last resort. By means of sweating, the shallow bath, and the sitz bath, he was restored to perfect health, and five years afterwards had had no return of the disease.

It would be impossible within the limits of this pamphlet to describe all the diseases in which the water treatment is peculiarly beneficial; and we will now merely refer, in detail, to constipation and indigestion, two maladies which must not be confounded, for they constantly exist quite independently of each other. There are few people who have not at times been troubled with constipation, and many suffer from it habitually. Simple applications of cold water will remove the evil after the whole round of drug remedies have been tried in vain. Indigestion, or dyspepsia, is a disease the terrors of which none can realize but those who have suffered them in their full intensity. It is customary to underrate the importance of this malady, and to treat it as a mere derangement of the stomach which half a dozen pills or a few tablespoonfuls of some nauseous compound will set right. Nothing could be a greater mistake. No doubt the *name* of the disease has helped to mislead; and if indigestion be treated merely as a disturbance of the digestive organs, it will never be cured, unless Nature relieve herself. In whatever part of the body the disease may originate—and this is a question of dispute—it is quite certain that it is by no means confined to the stomach. The brain is also greatly affected, while the blood becomes deficient both in quantity and quality, and, as a consequence, the whole body suffers for want of proper nourishment. There are probably few men of business in this country who do not suffer, in a greater or less degree, from dyspepsia. This is owing to the peculiar habits and pursuits of the present age. Amongst rude and uncivilized people, whose whole occupation is in the

open air, indigestion is unknown. It is caused by the great mental activity of the present day—the incessant wear of the brain in the pursuit of business or pleasure, without a corresponding exercise of the functions of the body. Of course there is a great difference in the symptoms of indigestion, as exhibited in various patients. They may be very slight and simple, merely sufficient to give the sufferer occasional uneasiness. But it is always dangerous to neglect them, or to continue unchecked the causes which give rise to them; for nothing can be more terrible than the agonies of the confirmed dyspeptic. Dr. Gully says, "It were vain to attempt to enumerate the signs [of nervous chronic indigestion], including as they do every possible variety of sensation and diseased thought; and there is scarcely one, however extravagant, which some dyspeptic has not experienced. Pains, shooting, burning, cutting, drawing, lacerating, &c.; sensations of cold, heat, fulness, emptiness, creeping, itching, gusts of wind, opening and shutting, gnawing, roughness, trembling, &c.; thoughts, depressed, impatient, suspicious, selfish; the mind indolent, vivid to the last degree, perverted, or, on the other hand, with excess of natural tendencies; the volition powerless, or, on the other hand, great to the point of constant restlessness. The impatience, irascibility, caprice, anxiety about trifles and about self, groundless fear, and similar marks of morbidly vivid mental action, are things for which the patient deserves pity, scarcely blame, for he knows their existence, and feels the torments of their mastery over him. That dominion may be increased until moral or intellectual insanity is established." Yet, fearful as are the symptoms, nothing can be more certain than the removal of indigestion by the water treatment. Most extraordinary cases are on record of the perfect cure of dyspeptic patients who, having tried in vain all the ordinary remedies, had resorted, almost in

despair, to hydropathy, and there found perfect relief. Necessarily, in confirmed cases of dyspepsia the process of cure is slow; but surely no sacrifice of time and trouble is too much, if it procure permanent relief from such a distressing and dangerous malady.

In conclusion, we may make more particular mention of the remedial virtues of the Turkish bath, the process of which has already been described, and which is gradually making its way into the hydropathic establishments throughout the kingdom. Simple cases of rheumatism and common colds are removed by this bath as if by magic, and when the rheumatic affection has become confirmed the only difference generally is that prolonged treatment is required. In many other diseases, such as neuralgia, gout, influenza, sciatica, lumbago, nervousness, &c., the action of the Turkish bath is invaluable. A few extracts from general authors of repute on the subject of baths of this kind will be interesting.

Sanctorius tells us, "Melancholy is overcome by a free perspiration; and cheerfulness, without any evident cause, proceeds from it."

Sir J. Fife, M.D., relates, "I have been restored to youth by being boiled, or rather roasted, alive in the bath of the Romans."

Darwin says, "To those who are past the meridian of life, the warm bath twice a week I believe to be eminently serviceable in retarding the advances of age."

C. W. Weber writes:—"I have mentioned how promptly my two comrades, who were experienced in Indian modes, adopted my suggestion of the bath and sweat. Those of my party who were less experienced proved more difficult to persuade; yet what magical results followed! We were invigorated and refreshed, in spite of all the wounds, bruises, and fatigue we had endured."

The author of "Travels in Syria" says:—"The Turkish bath was certainly a glorious luxury. Rest-

less nights found us pallid and exhausted from lack, of necessary and health-contributing sleep; languidly we rose, unfit for any active calling of life. Luckily, we had only some hundred yards to go to the bath. Thither we crept, dejected, feverish, and weak. By the time all our ablutions were completed, invigorating health and strength seemed to have repossessed our frames. From the bath homewards, the elasticity of our steps declared the efficacy of the remedy used, and a princely breakfast added its testimony to the efficiency of the cure."

Baron Alderson, in a letter to his son, says:—"I have been obliged at last to send for Sir Benjamin Brodie, to see me for my sciatica, and to-day, by his order, I have been stewed alive in a bath. Dreadfully hot, I can tell you—140 degrees, while a hot bath is only 98 degrees. Yet it was not unpleasant after all; for hot air does not burn like hot water, as it communicates its heat gradually to you, air being what they call a bad conductor of heat. So by the time the hot air makes you warm, a perspiration breaks out and cools you again."

Dr. Haughton, in a paper on the "Oriental Bath," writes:—"The Turks have always considered the public baths of Constantinople as supplying the place of a certain number of hospitals, which must otherwise be built. Gout is scarcely known; rheumatism is rare, and soon cured; workers in lead paints seldom are affected by alica pictonum; chronic skin diseases are very rare, and pulmonary consumption much less common than with us. There is no drug in *materia medica* at all comparable with that as a purifier of the blood; or even poisons are thus eliminated from the system; and it is well known that alcohol is frequently taken by the Turks in large quantities without producing inebriation. Besides which they enjoy an immunity more or less complete from various diseases, which would be quite unaccountable were the influence of the bath to be

denied. After the bath it would be imprudent to go out without remaining some time in the *frigidarium* to become cool. Nor does the bather require much persuasion to induce him to stop, as the sensations are so delicious that it is only necessary to lie still to enjoy a mental calm and exquisite consciousness of health that few of us have ever experienced."

Hufeland says :—"Pay the utmost attention to the skin, for the greater part of contagious poisons are conveyed to us through that source. The more active and open the skin is, the more secure people will be against obstructions and diseases of the lungs, intestines, and lower stomach; and the less tendency will they have to gastric (bilious) fevers, hypochondriasis, gout, asthma, catarrh, and varicose veins."

Rapon says :—"All authors agree, and daily experience proves it, that shampooing, administered in the bath, produces a change in the human organism, accompanied by the most agreeable sensations, which it is difficult to describe. It seems that one appreciates more completely the enjoyments of life, as if one had not lived before. To the fatigue which we feel succeeds a sensation of lightness, which makes us capable of every kind of bodily exercise ; the natural contractibility being restored to the muscles, they act with greater facility and energy ; one fancies that the blood circulates in greater quantity through the vessels, and the physical form undergoes a salutary change ; the functions of the brain, as frequently modified by this, show very soon a considerable increase of activity ; the imagination is excited ; smiling pictures of pleasure show themselves in the most agreeable light, and in the most vivid colour. The European, entirely ignorant and blindly condemning the customs of other nations, frequently finds in this Asiatic custom a pleasure which makes him soon adopt it. He sometimes carries their customs to excess ; and the women of our countries, when placed under the happy sky of India, do not

pass a single day without being shampooed by their attendants, and spend whole hours in this manner. Shampooing is not like friction, an easy operation that can be performed by anybody; it requires, on the contrary, much care and dexterity, and cannot be confided to any but prudent and experienced persons. It is capable of a great many modifications, according to the cases in which it is used, the persons who use it, and the part of the body to which it is directed."*

Dr. Barter says,—"Thousands are ready to acknowledge the untold benefits they have derived from the Turkish bath, after the failure of all other baths and all other medical appliances."

Another author remarks,—"Where the bath is the practice of the people there are no diseases of the skin: all cases of inflammation, local and general, are subdued; gout, rheumatism, sciatica, or stone, cannot exist when it is consecutively and sedulously employed as a curative means. I am inclined to say the same thing in reference to the plague. I am certain of it with reference to cholera. As to consumption, that scourge of England, that pallid spectre which sits by every tenth domestic hearth among the higher orders, it is not only unknown where the bath is practised, but is curable by its means. The bath has the effects of several classes of medicine; that is to say, it removes the symptoms for which they are administered; thus it is a cathartic, a diuretic, a tonic, a detersive, a narcotic; but the effect is only where there is cause. It will bring sleep to the patient suffering from insomnia, but will not, like opium, make the healthy man drowsy; and will relieve constipation without bringing on the healthy—as aloes would—diarrhœa; it is thus a drug which administers itself according to the need, and brings no after consequences."

The Rev. J. Wilson writes:—"How much burning fever and raking rheumatism might be spared to our

* "Dictionnaire des Sciences Médicales."

poor dirt-ingrained cottagers, if every town afforded easy access to such a clearing, cleansing, and pore-opening ablution! What a boon and blessing to the people of such a cold-catching, perspiration-checking climate as ours, if the thousands of gallons of boiling water that escape by pipe and valve from our factory engines, could be made available for the comfort, enjoyment, and security afforded by the Turkish bath to the humblest classes of the Moslem community! No people value cleanliness more than the English; the national proverb ranks it next to godliness, and yet nowhere upon earth are the means of securing it placed so far from the reach of her toiling millions. The Frenchman, the German, the Pole, and even the Russian Cossack, have all baths at command, and regard them as essential to health and comfort. The Greeks and Romans of old, patrician and plebeian, all revelled in the same enjoyment. We alone, as a people, know not what it is to bathe for nine months out of twelve; all but the comparative few being denied the ways and means of securing a blessing that might and ought to be within the reach of every member of every family in the kingdom, tending, as it does, to promote the health of body and mind, by maintaining purity in the one, and cheerfulness in the other; checking disease by cleanliness, and despondency by self-respect."

Dr. E. Smith, of the Ilkley Wells Hydropathic Establishment, writes:—"*The Turkish or Hot-air Bath* has for ages been known in the East as a therapeutic agent: it has however only recently been introduced into this country, but long enough to prove, already, its valuable power. The Turkish bath possesses, beyond all other means, the power of cleansing the external skin. Its emunctional functions are promoted by high temperature, and perspiration is induced; and thus it becomes a *hygienic* agent, in *sustaining* the normal state of health, or a *curative* power in *restoring* it when injured."